PATENT APPLICATION: US/09/811,045A

DATE: 06/29/2001 TIME: 12:17:00

Input Set : A:\D6386D SEQ.txt

Output Set: N:\CRF3\06292001\I811045A.raw

ENTERED

```
2 <110> APPLICANT: Scott, Robert E.
 4 <120> TITLE OF INVENTION: cDNA encoding R2P proteins and use of P2P cDNA-
         derived antibodies and antisense reagents
         in determining the proliferative potential of
         normal, abnormal and cancer cells in animals
         and humans
10 <130> FILE REFERENCE: D6386D
12 <140> CURRENT APPLICATION NUMBER: US 09/811,045A
13 <141> CURRENT FILING DATE: 2001-03-16
14 <150> PRIOR APPLICATION NUMBER: US 08/801,308
15 <151> PRIOR FILING DATE: 1997-02-18
17 <160> NUMBER OF SEQ ID NOS: 4
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1404
21 <212> TYPE: PRT
22 <213> ORGANISM: Unknown
24 <220> FEATURE:
26 <221> NAME/KEY: PEPTIDE
27 <223> OTHER INFORMATION: P2P polypeptide
29 <400> SEQUENCE: 1
30 Met Met Glu Val Lys Asp Pro Asn Met Lys Gly Ala Met Leu Thr
32 Asn Thr Gly Lys Tyr Ala Ile Pro Thr Ile Asp Ala Glu Ala Tyr
34 Ala Ile Gly Lys Lys Glu Lys Pro Pro Phe Leu Pro Glu Glu Pro
                                                             45
                    35
                                         40
36 Ser Ser Ser Ser Glu Glu Asp Asp Pro Ile Pro Ala Glu Leu Leu
                                         55
                    50
38 Cys Leu Ile Cys Lys Asp Ile Met Thr Asp Ala Val Ile Pro
                    65
                                         70
40 Cys Cys Gly Asn Ser Ser Cys Asp Glu Cys Ile Arg Thr Thr Leu
                    80
41
42 Leu Glu Ser Asp Lys His Thr Cys Pro Thr Cys His Gln Asn Asp
                    95
                                       100
44 Val Ser Pro Asp Ala Leu Ile Ala Asn Lys Phe Leu Arg Gln Ala
                                        115
                   110
46 Val Asn Asn Phe Lys Asn Glu Thr Gly Tyr Thr Lys Arg Leu Arg
47
                   125
                                        130
48 Lys Gln Leu Pro Pro Phe Leu Phe Leu Val Pro Pro Pro Arg Pro
                   140
                                       145
49
50 Leu Ser Gln Arg Asn Leu Gln Pro Arg Ser Arg Ser Pro Ile Leu
                                        160
                   155
52 Arg Gln Gln Asp Pro Val Val Phe Arg Tyr Thr Val Ser Pro Thr
                                        175
                   170
54 Cys Ser Asp Thr Lys Thr Ala Gly Ser Cys Ser Asp Ser Gly Thr
                   185
                                        190
56 Leu Ser Arg Leu Pro Ala Pro Ser Ile Ser Ser Leu Thr Ser Asn
```

PATENT APPLICATION: US/09/811,045A

DATE: 06/29/2001 TIME: 12:17:00

Input Set : A:\D6386D_SEQ.txt

Output Set: N:\CRF3\06292001\I811045A.raw

													-		
57					200					205					210
58	Gln	Ser	Ser	Leu	Ala	Pro	Pro	Val	Ser	Gly	Asn	Pro	Ser	Ser	Ala
59					215					220					225
	Pro	Ala	Pro	Val	Pro	Asp	Ile	Thr	Ala	Thr	Val	Ser	Ile	Ser	Val
61					230	_				235					240
	His	Ser	Glu	Lvs		Asp	Glv	Pro	Phe		Asp	Ser	Asp	Asn	
63		001	014	2,5	245	1101	4 - <i>y</i>			250		001			255
	Len	Len	Pro	Δla		Δla	T.e.ii	Thr	Ser		His	Ser	Lvs	Glv	
65	пец	пец	110	ALG	260	пта	ысц	1111	DCI	265	1113	DCI	цуо	Ory	270
	Sor	Sor	Tla	λla		Thr	Δ 1 =	Lou	Mot		Glu	T.ve	Glv	V = 1	
	Ser	261	116	та	275	1111	лта	пец	inec	280	Gru	шуз	ОТУ	vai	285
67	C1	mh sa	Con	Dwo	_	7 00	Cox	Tlo	Dho		C1.,	Cln	602	Tou	
	σту	Inr	ser	PIO	_	ASII	ser	TTE	FIIE		Gly	GIII	ser	neu	
69		~ 1	~ 1	-	290	5	m).	mı.	01	295	77-1	7	T1.	7\	300
	Hls	Gly	GIn	Leu		Pro	Thr	Thr	GIĀ		Val	Arg	тте	Asn	
71	_		_		305		_	_		310			_		315
	Ala	Arg	Pro	GLy		GLy	Arg	Pro	Gly		Glu	His	Ser	Asn	
73					320					325		_	_		330
	Leu	Gly	Tyr	Leu		Ser	Pro	Pro	Gln		Ile	Arg	Arg	GLy	
75					335					340					345
76	Arg	Ser	Cys	Tyr	_	Ser	Ile	Asn	Arg		Arg	His	His	Ser	
77				•	350					355					360
78	Arg	Ser	Gln	Arg	Thr	Gln	Ser	Pro	Ser	Leu	Pro	Ala	Thr	Pro	_
79					365					370					375
80	Phe	Val	Pro	Val	Pro	Pro	Pro	Pro	Leu	Tyr	Pro	Pro	Pro	Pro	His
81					380					385					390
82	Thr	Leu	Pro	Leu	Pro	Pro	Gly	Val	Pro	Pro	Pro	Gln	Phe	Ser	Pro
83					395					400		•			405
84	Gln	Phe	Pro	Ser	Ser	Gln	Pro	Pro	Thr	Ala	Gly	Tyr	Ser	Val	Pro
85					410					415					420
86	Pro	Pro	Gly	Phe	Pro	Pro	Ala	Pro	Ala	Asn	Ile	Ser	Thr	Ala	Cys
87					425					430	•				435
88	Phe	Ser	Pro	Gly	Val	Pro	Thr	Ala	His	Ser	Asn	Thr	Met	Pro	Thr
89				_	440					445					450
90	Thr	Gln	Ala	Pro	Leu	Leu	Ser	Arg	Glu	Glu	Phe	Tyr	Arg	Glu	Gln
91					455			_		460		-	-		465
92	Asn	Asp	Lvs	Glv	Arg	Glu	Ser	Lys	Phe	Pro	Tyr	Ser	Gly	Ser	Ser
93			-	4	470			-		475	-		-		480
	Tvr	Ser	Ara	Ser	Ser	Tvr	Thr	Asp	Ser	Ser	Gln	Glv	Leu	Ala	Gln
95	-]	202	9		485	- 1				490		1			495
	His	Tle	His	Ala		Thr	Leu	Ser	Pro		Ala	Ala	His	Thr	
97		110			500					505					510
	Asn	I.e.ii	T.e.11	His	-	His	Pro	His	Pro		Glu	Glu	Ala	Glu	
99	тор	пси	пси	1110	515	*****				520	0.2.0				525
) <u>A</u> rc	7 SA1	- Δl:	. Mot		. Val	Hid	. Met	· Pro		ı T.eı	ı Met	- Ası	5 T16	e Ala
10.		1 261	LATO	i Net	530		L 11.1.	1100		535		1100	- 7101	, 110	540
		- 7\1-	3 7\ r c	, Co			r Dra) Pro) ጥ የታን			ነ ጥኒን፣	r Are	r Sei	r Arg
102		O WIG	z WT	, sei	545		(<i>,</i>	, <u>.</u> 1	55(, r Y 1		, 50	555
		~ 7\~~-	· C.	~ D~-			ı Dha		. 61.			· Dr	ጉጥኮ፣	r T.04	s Arg
		r AL	a sei	r LT.(560		7 L116	- WIG	, פד	56!		. r.(J 1113	rъ	570
105)				300	,				26:	,				570

PATENT APPLICATION: US/09/811,045A

DATE: 06/29/2001 TIME: 12:17:00

Input Set : A:\D6386D_SEQ.txt

Output Set: N:\CRF3\06292001\1811045A.raw

106 107	Asn	Val	Pro	Arg	Glu 575	Glu	Lys	Glu	Arg	Glu 580	Tyr	Phe	Asn	Arg	Tyr 585
108 109	Arg	Glu	Val	Pro	Pro 590	Pro	Tyr	Asp	Ile	Lys 595	Ala	Tyr	Tyr	Gly	Arg 600
110 111	Ser	Val	Asp	Phe	Arg 605	Asp	Pro	Phe	Glu	Lys 610	Glu	Arg	Tyr	Arg	Glu 615
112 113	Trp	Glu	Arg	Lys	Tyr 620	Arg	Glu	Trp	Tyr	Glu 625	Lys	Tyr	Tyr	Lys	Gly 630
114 115	Tyr	Ala	Val	Gly	Ala 635	Gln	Pro	Arg	Pro	Ser 640	Ala	Asn	Arg	Glu	Asp 645
117			Pro		650					655					660
119			Arg	_	665					670					675
121	_		Arg		680					685					690
123	_	_	Ser		695					700					705
125			Glu		710		_	_		715					720
127	_		Arg	_	725	_				730					735
129			Leu		740					745					750
131	-		Ser	_	755	_				760					765
133			Ser	_	770	_				775					780
135	-		Glu		785			-		790					795
137	_		Lys		800		_			805					810
139	_		Asp	_	815		,			820					825
141			Lys	•	830			-		835	-	_	_		840
143			Ile		845					850					855
145		_	Val		860					865					870
147			Thr		875					880					885
149	_	_	Val		890					895					900
151	_		Arg		905					910					915
153		_	Lys		920					925					930
194	1119	O L U	ت بر س	11011		9	-14	-10	9	-,5	-10	~ ~ -			-10

DATE: 06/29/2001 PATENT APPLICATION: US/09/811,045A TIME: 12:17:00

Input Set : A:\D6386D_SEQ.txt

Output Set: N:\CRF3\06292001\1811045A.raw

155					935				940				945
156	Asp	Phe	Glu	Ser	Ser Ser	Met	Lys	Ile	Ser Lys	Val	Glu	Gly	Thr
157	_				950				955				960
158	Glu	Ile	Val	Lys	Pro Ser	Pro	Lys	Arg	Lys Met	Glu	Gly	Asp	Val
159				-	965		_	_	970		_	_	975
	Glu	Lvs	Leu	Glu	Arg Thr	Pro	Glu	Lvs	Asp Lys	Ile	Ala	Ser	Ser
161					980			-1-	985				990
	Thr	Thr	Pro	Ala		Tle	Lvs	Len	Asn Arg	Glu	Thr	Glv	
163		****	110		995		_,_	204	1000	0_0		011	1005
	Tuc	т10	Clv	Acn		7) en	Δ1 a	Sar	Thr Thr	Live	Glu	Pro	
165	цуз	116	СТУ	Doll	1010	ASII	пια	DCI	1015	цуз	Olu	110	1020
	C1.1	T ***	Tou	Clu		Sor	Sar	Tue	Ile Lys	Gln	Glu	Luc	
	GIU	гуу	neu	GIU	1025	Ser	Ser	цуз	1030	GIII	GIU	цуз	1035
167	.	a 1	T	70 T -		T	77-3	ת 1 ת		C1	c1	Com	
	ьys	GTA	ьуѕ	Ala		гуз	val	Ата	Gly Ser	GIU	сту	ser	
169	_	_,	_		1040	m)	~	m)	1045	m1	61	01	1050
	Ser	Thr	Leu	Val		Thr	Ser	Thr	Ser Ser	Thr	GTÄ	GTĀ	
171					1055		_		1060	_	_		1065
172	Pro	Val	Arg	Lys		Glu	Lys	Thr	Asp Thr	Lys	Arg	Thr	
173					1070				1075				1080
174	Ile	Lys	Thr	Met	Glu Glu	Tyr	Asn	Asn	Asp Asn	Thr	Ala	Pro	
175					1085				1090				1095
176	Glu	Asp	Val	Ile	Ile Met	Ile	Gln	Val	Pro Gln	Ser	Lys	Trp	Asp
177		*			1100				1105				1110
178	Lys	Asp	Asp	Phe	Glu Ser	Glu	Glu	Glu	Asp Val	Lys	Thr	Thr	Gln
179		_			1115				1120				1125
180	Pro	Ile	Gln	Ser	Val Gly	Lys	Pro	Sér	Ser Ile	Ile	Lys	Asn	Val
181					1130	-			1135		-		1140
	Thr	Thr	Lvs	Pro	Ser Ala	Thr	Ala	Lvs	Tyr Thr	Glu	Lys	Glu	Ser
183				•	1145			•	1150		•		1155
	Glu	Gln	Pro	Glu		Gln	Lvs	Leu	Pro Lys	Glu	Ala	Ser	His
185		J		0	1160		-1-		1165				1170
	Glu	T.eu	Met	Gln		Leu	Ara	Ser	Ser Lys	Glv	Ser	Ala	Ser
187	014	200		01	1175		5		1180	1			1.185
	Sor	Glu	Luc	Glv		T.vs	Asn	Ara	Glu His	Ser	Glv	Ser	
189	Der	GIU	цуз	Оту	1190	Lys	710P	1119	1195	501	O± y	OC1	1200
	T 110	7 020	7 an	Dro		λκα	Lvc	Sor	Gly Ala	Gln	Dro	Aen	
191	пÃ2	MSP	AŞII	110	1205	Arg	цуэ	JCI	1210	0111	110	пор	1215
	C1	Com	mb ~	W- 1		Tou	. doż	Clu	Gln Gly	n i c	Dho.	Tvc	
	GIU	ser	Thr	vai	-	ьeu	ser	GIU		пто	rne	туѕ	
193		~	61	^	1220	G1	m\	70	1225	C1	T	11.4 ~	1230
	Leu	Ser	GIn	Ser		Glu	Thr	Arg	Thr Ser	GIU	гаг	HIS	
195					12:35	_	_	_	1240	_		_	1245
	Ser	Val	Arg	Gly		Asn	Lys	Asp	Phe Thr	Pro	GLY	Arg	
197					1250				1255				1260
	Lys	Lys	Val	Asp		Ser	Arg	Asp	Tyr Ser	Ser	Ser	Lys	
199					1265				1270				1275
200	Arg	Asp	Glu	Arg	Gly Glu	Leu	Ala	Arg	Arg Lys	Asp	Ser	Pro	
201					1280		*		1285				1290
202	Arg	Gly	Lys	Glu	Ser Leu	Ser	Gly	Gln	Lys Ser	Lys	Leu	Arg	
203					1295				1300				1305

DATE: 06/29/2001

TIME: 12:17:00

Input Set : A:\D6386D SEQ.txt Output Set: N:\CRF3\06292001\I811045A.raw 204 Glu Arg Asp Leu Pro Lys Lys Gly Ala Glu Ser Lys Lys Ser Asn 1310 205 206 Ser Ser Pro Pro Arg Asp Lys Lys Pro His Asp His Lys Ala Pro 1335 207 1325 1330 208 Tyr Glu Thr Lys Arg Pro Cys Glu Glu Thr Lys Pro Val Asp Lys 1345 1340 209 210 Asn Ser Gly Lys Glu Arg Glu Lys His Ala Ala Glu Ala Arg Asn 1355 1360 1365 212 Gly Lys Glu Ser Ser Gly Ala Asn Cys His Val Tyr Leu Thr Arg 1375 1380 1370 213 214 Gln Thr Leu Pro Trp Arg Arg Ser Trp Leu Leu Gly Arg Trp Arg 1395 1385 216 Arg Ala Pro Ser Ser Arg Asn Pro Ser 217 1400 219 <210> SEQ ID NO: 2 220 <211> LENGTH: 5173 221 <212> TYPE: DNA 222 <213> ORGANISM: Unknown 224 <220> FEATURE: W--> 226 <221> NAME/KEY: cDNA 227 <223> OTHER INFORMATION: P2P cDNA 229 <400> SEQUENCE: 2 230 aggtccacca cctccatctt acacctgctt tcgttgtggt aaacctggtc attatattaa 60 231 gaattgccaa caaatgggga taagaacttt gaatctggtc ctaggatcaa aaagagcact 120 232 ggaatteeta gaagttttat gatggaagtg aaagateeta acatgaaagg tgcaatgett 180 233 accaacactg qaaaatatgc aataccaact atagatgcag aggcctatgc aatcgggaag 240 234 aaaqaqaaac caccettett accagaggag ccatcatcat etteagaaga agatgateet 300 235 atcccagcag agetettgtg ceteatetge aaagacatea tgactgatge tgtggteatt 360 236 ccctgctgtg gaaacagttc atgtgatgaa tgtataagaa cgacactctt ggagtcagat 420 237 aaacatacat gtccaacatg tcaccaaaat gatgtttctc ctgatgcttt aattgccaac 480 238 aagtttttac gacaggctgt taataacttt aaaaatgaaa ctggctatac aaaacgacta 540 239 cgaaaacagt tacctccatt tttattttta gtaccaccac caagaccact cagtcagcgg 600 240 aacctacage ctegtagtag atetecaata etaagacage aggateetgt agtatteagg 660 241 tacactgtct cgcctacctg ctccgatact aagacagcag gatcctgtag tgattcaggt 720 242 acactytete geetaeetge teegtetata tetteattaa ettetaatea gtetteettg 780 243 geceeteetg tgtetggaaa teegtettet geteeagete eagtacetga tataactgea 840 244 accgtgtcta tatcagtcca ctcagaaaaa tcggatggac cttttcggga ttctgataat 900 245 aaattattgc cagctgccgc ccttacatca gaacattcaa agggagcctc ttcaattgct 960 246 attactgctc ttatggaaga aaaaggggta ccaggtacca gtccttggaa ctccatcttt 1020 247 gttggacagt cattattaca tggacagttg attcccacaa ctggcccagt aagaatcaat 1080 248 gctgctcgtc caggtggtgg ccggccaggc tgggagcatt ccaacaagct tgggtaccta 1140 249 gtttctccac cacaqcaaat taqaaqagga gaaagaagct gttacagaag tataaaccgc 1200 250 gggcgacacc acagcgaacg atcacagagg actcaaagcc catcacttcc agcaactcca 1260 251 tgctttgtgc ccgttccacc acctcctttg tatccgcctc ctccccatac acttcctctt 1320 252 cctccaggtg tacctcctcc acagttttct cctcagtttc cctcctccca gcctccaaca 1380 253 gcaggatata gtgtccctcc tccaggattt ccaccagctc ctgccaatat atcaacagct 1440 254 tgcttttcac caggtgttcc cactgcccat tcaaatacca tgcccacaac acaagcacct 1500 255 cttttgtcca gggaagaatt ctatagagag caaaacgaca aaggaagaga gtctaaattt 1560 256 ccctatagtg ggtcatcgta ttcaagaagt tcatacactg actcaagtca aggtctggct 1620

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/811,045A

VERIFICATION SUMMARY

DATE: 06/29/2001

PATENT APPLICATION: US/09/811,045A

TIME: 12:17:01

Input Set : A:\D6386D_SEQ.txt

Output Set: N:\CRF3\06292001\1811045A.raw

L:226 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2